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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,505	01/11/2005	Christopher Anderson	CL2309USPCT	1995

7590 12/24/2008
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EXAMINER

KWIECINSKI, RYAN D

ART UNIT	PAPER NUMBER
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3635

MAIL DATE	DELIVERY MODE
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12/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/521,505	Applicant(s) ANDERSON ET AL.	
	Examiner RYAN D. KWIECINSKI	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 10-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Invention I in the reply filed on 20 October 2008 is acknowledged. Claims 1-9 have been examined in this Office Action. Claims 10-27 have been withdrawn.

Drawings

The drawings are objected to under 37 CFR 1.83(a). **The drawings must show every feature of the invention specified in the claims.** Therefore:

- at least two layers of transparent glass, transparent solid non-glass interlayer, air cavity, device, solid state lighting, heat sensors, light sensors, pressure sensors, thin film capacitance sensors, photovoltaic cells, thin film batteries, liquid crystal display films, suspended particle device films, and transparent electrical conductors per claim 1;
- microprocessor chip and the sequence of images per claim 2;
- exterior window or wall, light sensor, liquid crystal display film, means to control the translucency per claim 3;
- exterior window or wall, light sensor, suspended particle device film, means to control the translucency per claim 4;
- glazed window, said device, said air cavity, photovoltaic cells, a thin film battery per claim 5;

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- laminated glass, at least one layer of glass, at least one layer of polymer, transparent non-glass, air cavity, device, solid state lighting, heat sensors, light sensors, pressure sensors, thin film capacitance sensors, photovoltaic cells, thin film batteries, liquid crystal display films, suspended particle device films, and transparent electrical conductors per claim 6;

- microprocessor chip and sequence of images per claim 7;

- external window or wall, light sensor, liquid crystal display film, means to control translucency per claim 8;

- exterior window or wall, light sensor, suspended particle device film, means to control the translucency per claim 9;

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

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application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a) because **they fail to show the details of the laminated glass as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d)**. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and

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informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to because:

1) Fig. 1a-1d, Fig.3a-3b and Fig. 4a-4c should be labeled individually. The label Figure 1, Figure 3 and Figure 4 is unnecessary.

2) Figures 1a – 1d and Figures 3a – 3b should be resubmitted as drawings which allow all the details of the invention to be seen. The photographs are not clear and cannot be properly copied in black and white.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

- 1) the individual figures should be properly described on Page 3 under the heading "Brief Description of the Drawings".
- 2) the specification does not provide any specific labeled structure in the elected species in Figures 1a – 1d.
- 3) although the inventions described in examples 5 - 12 were not elected, no drawings accompany their descriptions.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,197,242 to Baughman et al.

Claim 1.

Baughman et al. disclose a laminated glass comprised of at least two layers of transparent glass (6, 8, Fig.2) with adjacent glass layers separated by an air cavity (air spaced filled with 10), wherein said air cavity contains a device comprised of liquid crystal display film (7,11, and 14, Fig.2).

Claim 3.

Baughman et al. disclose the laminated glass of Claim 1 that is used as an exterior window (Column 1, lines 10-12), wherein said device is comprised of a light sensor (Column 7, lines 56-60), a liquid crystal display film (7, 11, and 14, Fig.2) and means to control the translucency (15, Fig.2) of said liquid crystal display film whereby as the intensity of the external light impinging on said sensor increases said means reduces said translucency of said liquid crystal display film and as the intensity, of said external light impinging on said sensor decreases said means increases said translucency of said liquid crystal display film to provide variable shading of the interior (Column 5, lines 39-45).

Claim 6.

Baughman et al. disclose a laminated glass comprised of at least one layer of transparent glass (6, Fig.2) and at least one layer of transparent polymer (8, Fig.2; Column 8, lines 49-52) with adjacent glass and transparent polymer layers separated by

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an air cavity (cavity filled with 10, Fig.2), wherein said air cavity contains a device comprised of a liquid crystal display film (7,11, and 14, Fig.2).

Claim 8.

Baughman et al. disclose the laminated glass of Claim 6 that is used as an exterior window (Column 1, lines 10-12), wherein said device is comprised of a light sensor (Column 7, lines 56-60), a liquid crystal display film (7, 11, and 14, Fig.2) and means to control the translucency (15, Fig.2) of said liquid crystal display film whereby as the intensity of the external light impinging on said sensor increases said means reduces said translucency of said liquid crystal display film and as the intensity of said external light impinging on said sensor decreases said means increases said translucency of said liquid crystal display film to provide variable shading of the interior (Column 5, lines 39-45).

Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5,221,363 to Gillard.

Claim 1.

Gillard discloses a laminated glass comprised of at least two layers of transparent glass (10,11, Fig.3) with adjacent glass layers separated by an air cavity (space between the glass), wherein said air cavity contains a device comprised of thin film batteries (23, 24, 25, 26, 27, Fig.5; Column 3, lines 30-50).

Claim 5.

Gillard discloses the laminated glass of Claim 1 in the form of a conventional laminated glass double glazed window (Fig.1), wherein said device is contained within said air cavity (12,13, Fig.3) of said conventional laminated glass double glazed window and said device comprises:

- a) a photovoltaic cell (13, Fig.3) to convert the solar energy impinging on said photovoltaic cell to electrical energy; and
- b) a thin film battery (23, 24, 25, 26, 27, Fig.5; Column 3, lines 30-50) to store said electrical energy.

Claims 1, 4, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by US 6,039,390 to Agrawal et al.

Claim 1.

Agrawal et al. disclose a laminated glass comprised of at least two layers of transparent glass (1505a, 1505b, Fig.13) with adjacent glass layers separated by an air cavity (space between the glass), wherein said air cavity contains a device comprised of suspended particle device film (1503, Fig.13; Column 12, lines 23-34).

Claim 4.

Agrawal et al. disclose the laminated glass of Claim 1 that is used as an exterior window (Fig.13), wherein said device is comprised of a light sensor (Column 14, lines 4-30), a suspended particle device film (1502; Column 12, lines 23-34) and means to control the translucency (of said suspended particle device film whereby as the intensity of the external light impinging on said sensor increases said means reduces said translucency of said suspended particle device film and as the intensity of said external light impinging on said sensor decreases said means increases said translucency of said suspended particle device film to provide variable shading of the interior (Column 14, lines 4-13).

Claim 6.

Agrawal et al. disclose a laminated glass comprised of at least one layer of transparent glass (Column 24, lines 53-55) and at least one layer of transparent polymer (Column 24, lines 53-55) with adjacent glass and transparent polymer layers separated by an air cavity (cavity between 1505a and 1505b, Fig.13), wherein said air cavity contains a device comprised of a suspended particle device film (1503, Fig.13; Column 12, lines 23-34).

Claim 9.

Agrawal et al. disclose the laminated glass of Claim 6 that is used as an exterior window (Fig.13), wherein said device is comprised of a light sensor (Column 14, lines 4-30), a suspended particle device film (1502; Column 12, lines 23-34) and means to

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control the translucency (of said suspended particle device film whereby as the intensity of the external light impinging on said sensor increases said means reduces said translucency of said suspended particle device film and as the intensity of said external light impinging on said sensor decreases said means increases said translucency of said suspended particle device film to provide variable shading of the interior (Column 14, lines 4-13).

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US 3,249,804 to Aiken.

Claim 1.

Aiken discloses a laminated glass comprised of at least two layers of transparent glass (11, 14a, Fig.1) with adjacent glass layers separated by a transparent solid non-glass interlayer (12,13,14, Fig.1), wherein said air cavity contains a device comprised of solid state lighting (12,13,14, Fig.1; Column 1, lines 25 and 34-39).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 3,249,804 to Aiken in view of US 6,039,390 to Agrawal et al.

Claim 2.

Aiken discloses the laminated glass of Claim 1, with a controller (28, Fig.2) but does not specifically disclose wherein said device is further comprised of a microprocessor chip that is programmed to control said solid state lighting and to cause said solid state lighting to display a sequence of images.

Agrawal et al. disclose using a microprocessor chip to control the laminated glass (Column 17, lines 20-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the laminated glass of Aiken with a microprocessor as taught by Agrawal et al. Microprocessors are notoriously well known in the art. The devices have become rather cheap and are able to be programmed to control the lighting of the laminated glass instead of manually turning the panel on and off or relaying on outdated technology to control the laminated glass panel.

Claim 6.

Aiken discloses a laminated glass comprised of two layers of transparent glass (11, 14a, Fig.1) with adjacent glass layers separated by a transparent solid non-glass layer (12,13,14, Fig.1), wherein said non-glass layer contains a device comprised of a solid state lighting (12, 13, 14, Fig.1; Column 1, lines 25 and 34-39).

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Aiken does not disclose a layer of polymer.

Agrawal discloses wherein the substrate is a polymer (Column 14, lines 40-53).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have formed the panel of Aiken from a polymer material since polymers are known to have extremely high durability and strength as well as resistance to the elements. Polymers will also reduce the weight of the laminated glass panel. Using transparent polymers in laminated glass structures has become a legitimate substitution in the art.

Claim 7.

Aiken in view of Agrawal et al. discloses the laminated glass of Claim 6, Agrawal et al. also discloses wherein there is provided externally to said laminated glass a microprocessor chip ((Column 17, lines 20-25) that is programmed to control said solid state lighting and to cause said solid state lighting to display a sequence of images.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. KWIECINSKI whose telephone number is (571)272-5160. The examiner can normally be reached on Monday - Friday from 9 am to 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Basil Katcheves can be reached on (571)272-6846. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RDK

/Ryan D Kwiecinski/
Examiner, Art Unit 3635

/Basil Katcheves/

Primary Examiner, Art Unit 3635